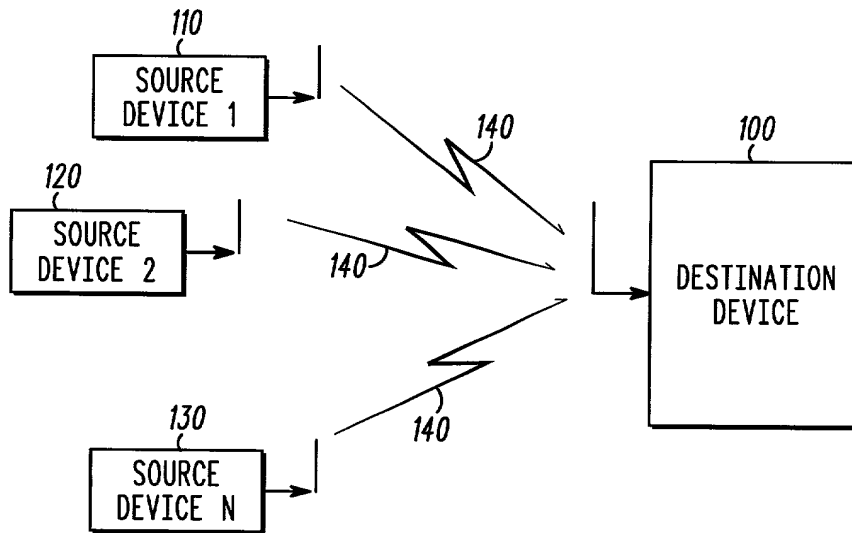
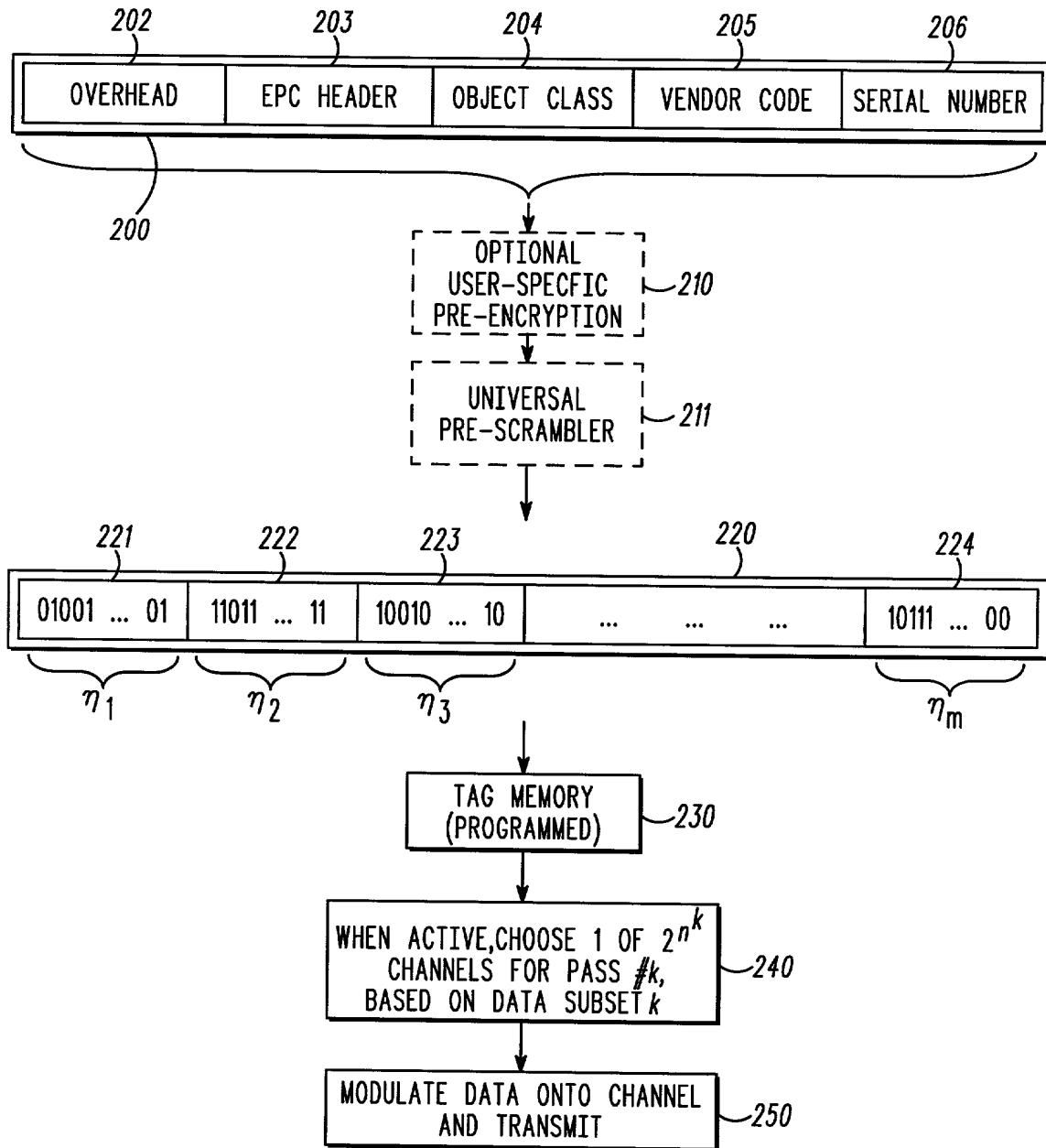


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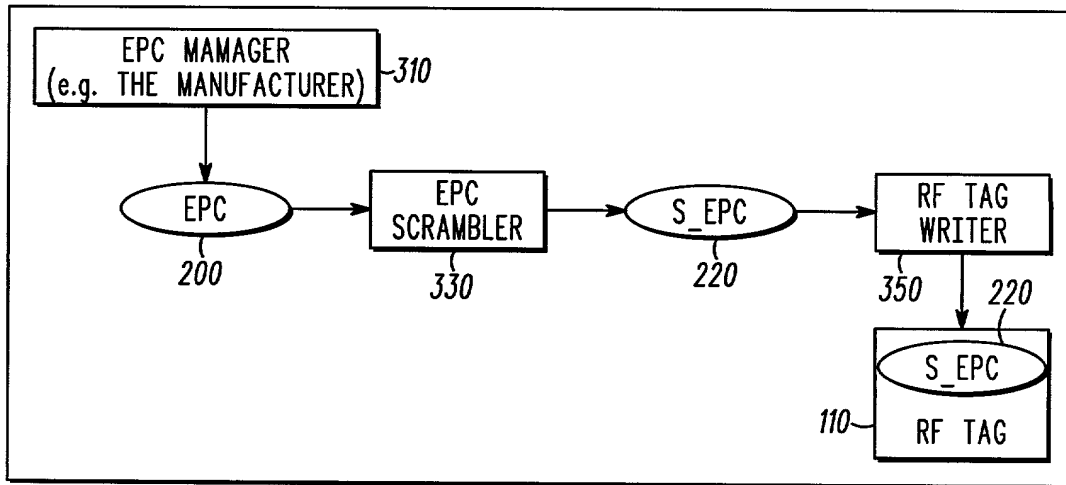
**FIG. 1**

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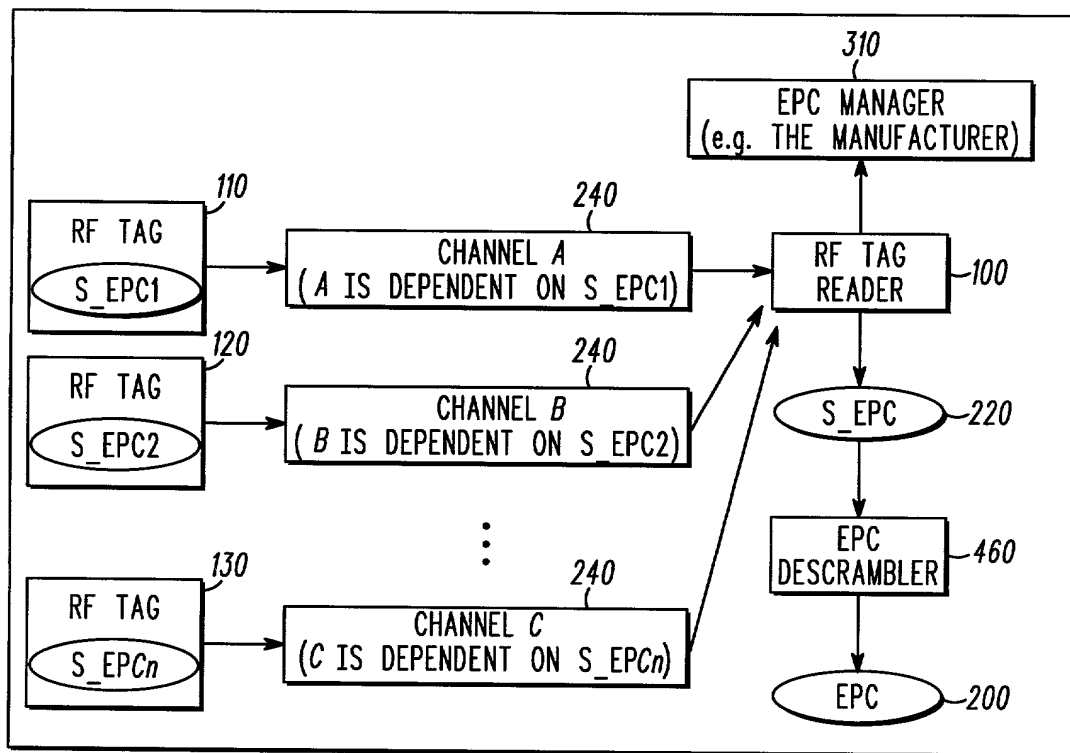


**FIG. 2**

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**FIG. 3**



**FIG. 4**

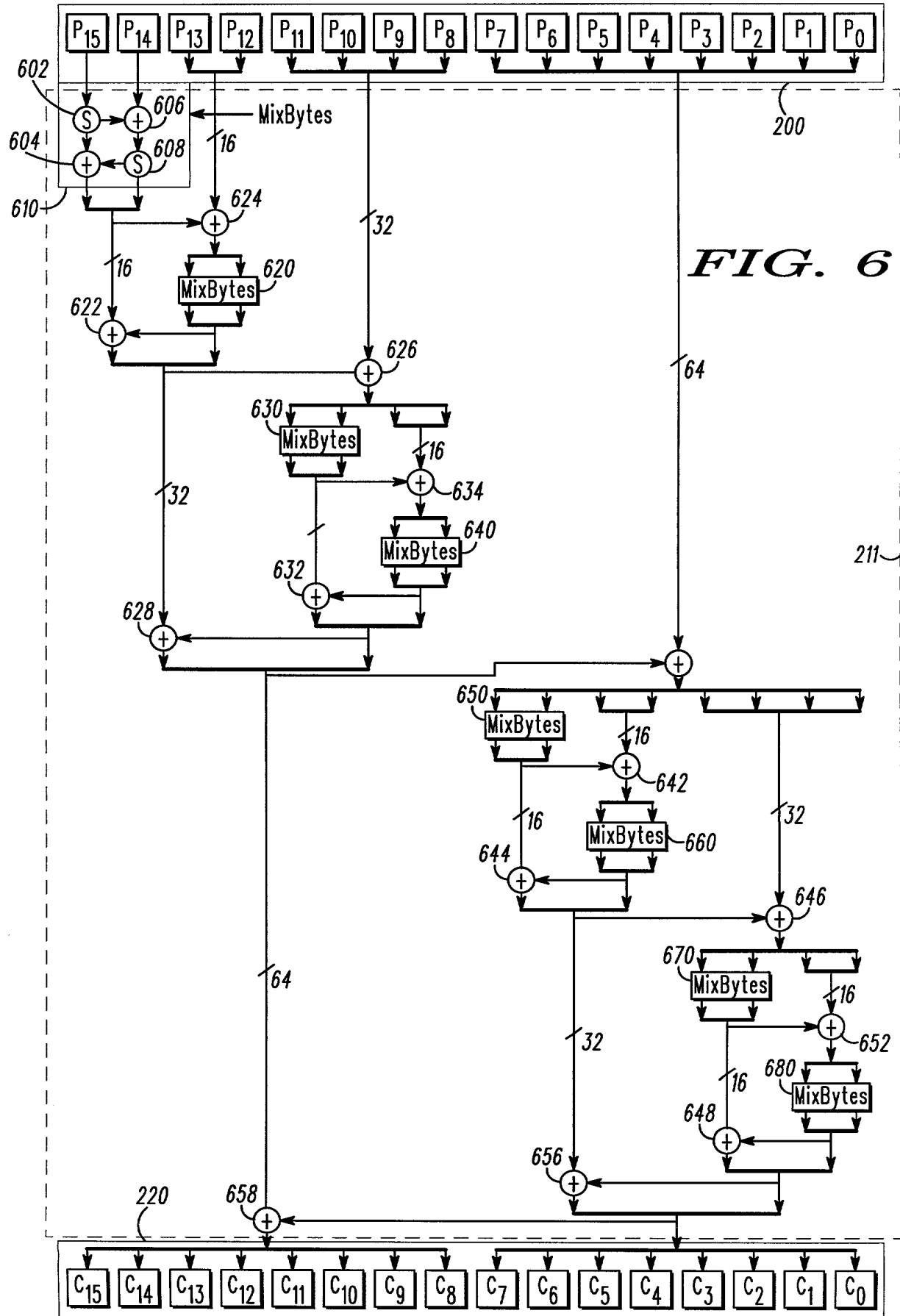
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510 SCRAMBLE (DATA, LENGTH) {  
    IF (LENGTH == 1)  
        RETURN (Sbox [DATA] ) ;  
    DATA. LEFT = SCRAMBLE (DATA. LEFT, LENGTH/2) ;  
    DATA. RIGHT ^= DATA LEFT ;  
    DATA. RIGHT = SCRAMBLE (DATA. RIGHT, LENGTH/2) ;  
    DATA. LEFT ^=DATA. RIGHT ;  
}

520 DESCRAMBLE (DATA, LENGTH) {  
    IF (LENGTH == 1)  
        RETURN (INVERSESbox [DATA] ) ;  
    DATA. LEFT ^=DATA. RIGHT ;  
    DATA. RIGHT = DESCRAMBLE (DATA. RIGHT, LENGTH/2) ;  
    DATA. RIGHT ^= DATA. LEFT ;  
    DATA. LEFT = DESCRAMBLE (DATA. LEFT, LENGTH/2) ;  
}

**FIG. 5**

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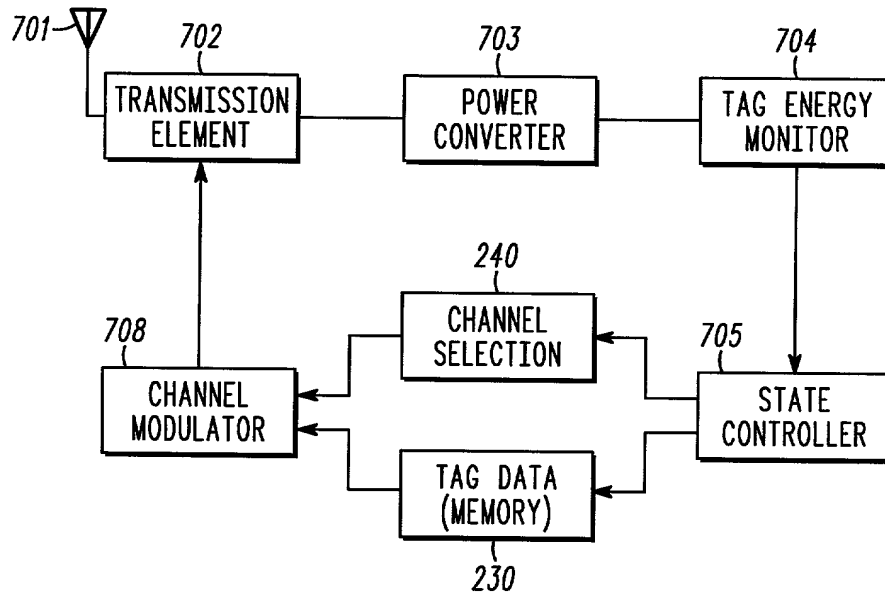


FIG. 7

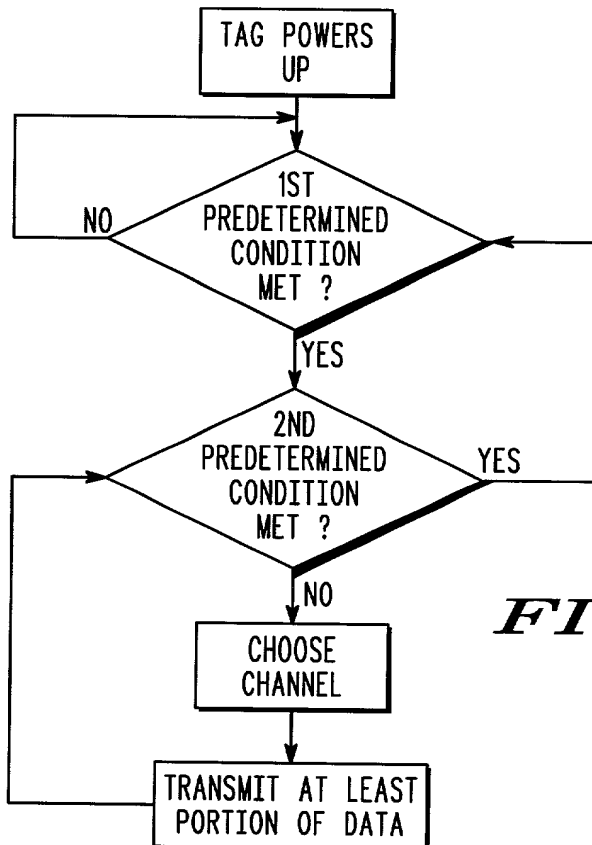
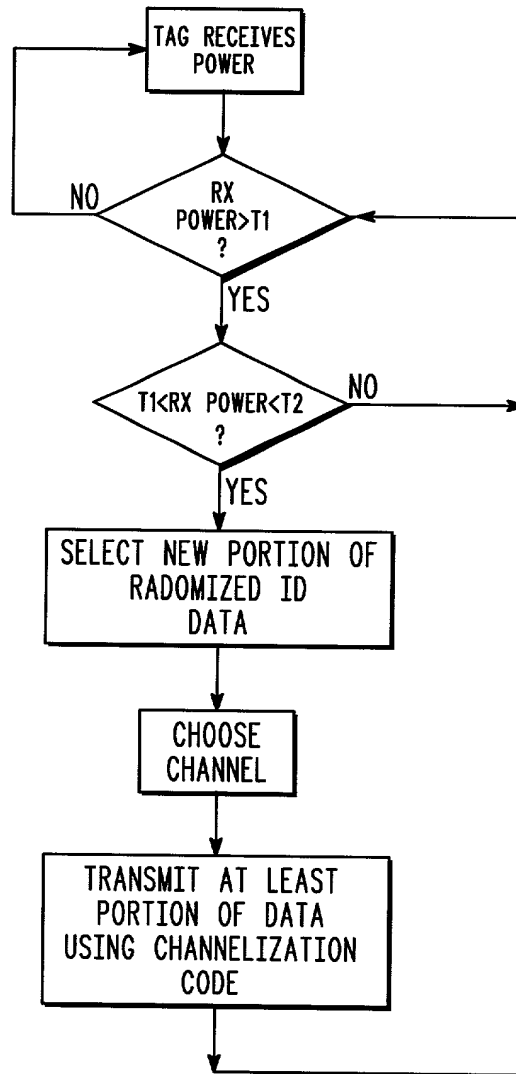


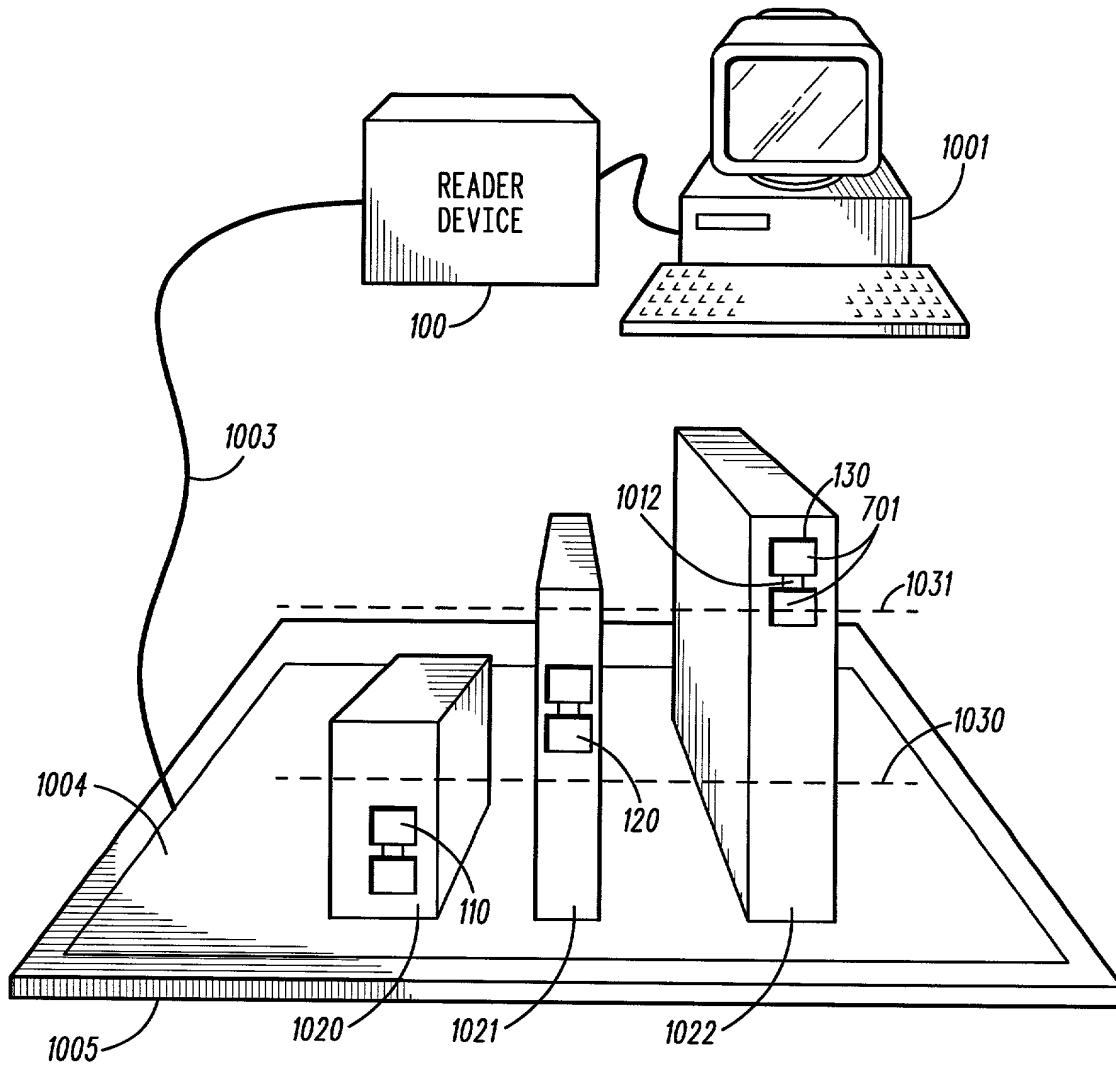
FIG. 8

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**FIG. 9**

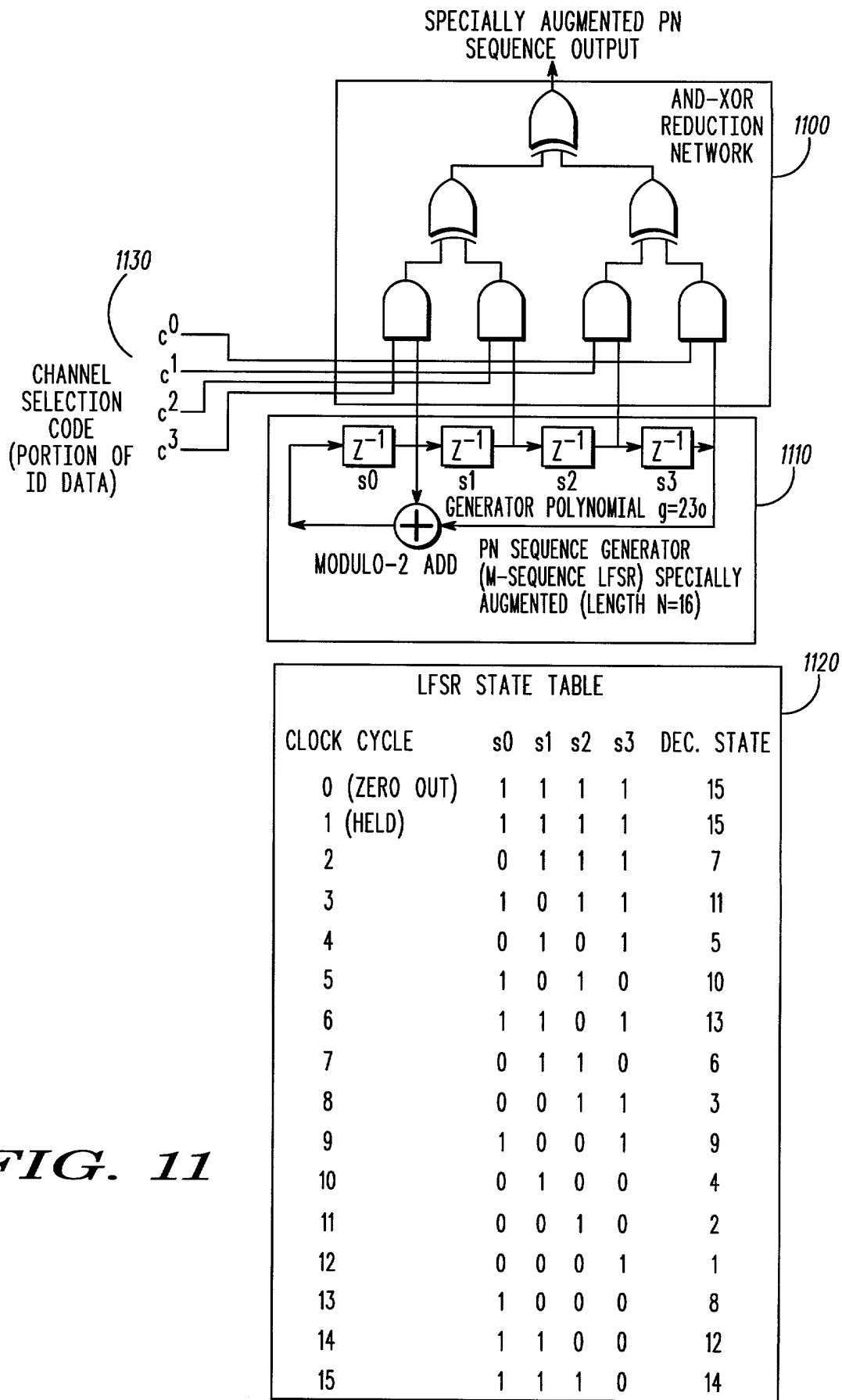
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**FIG. 10**

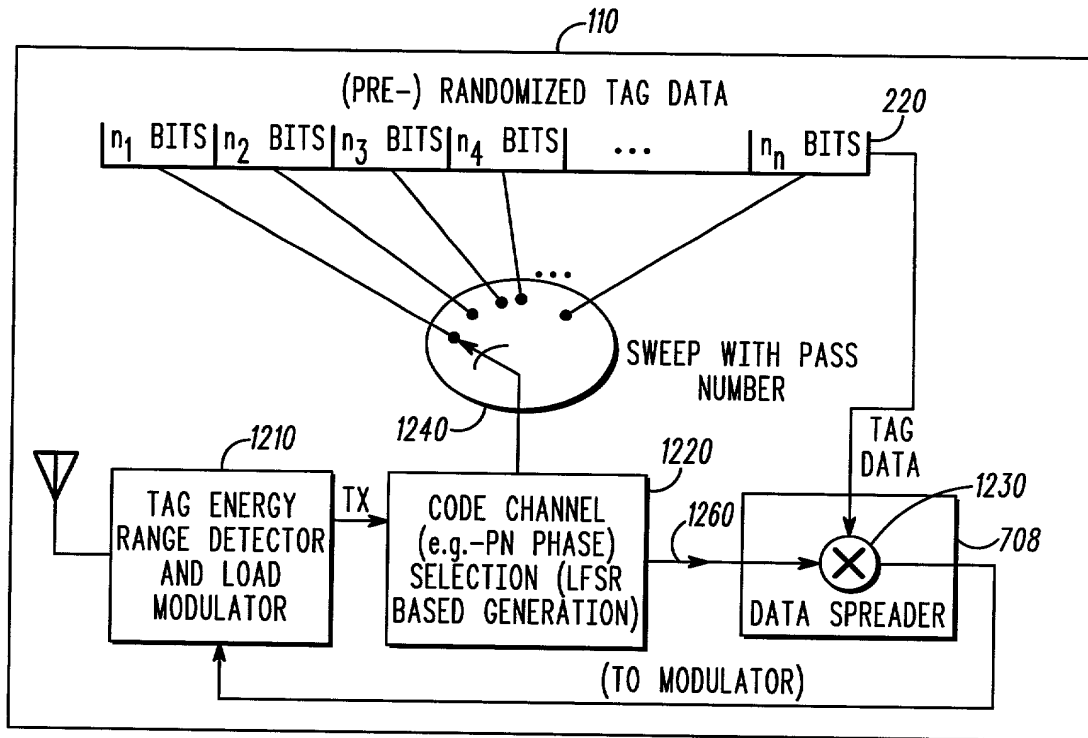


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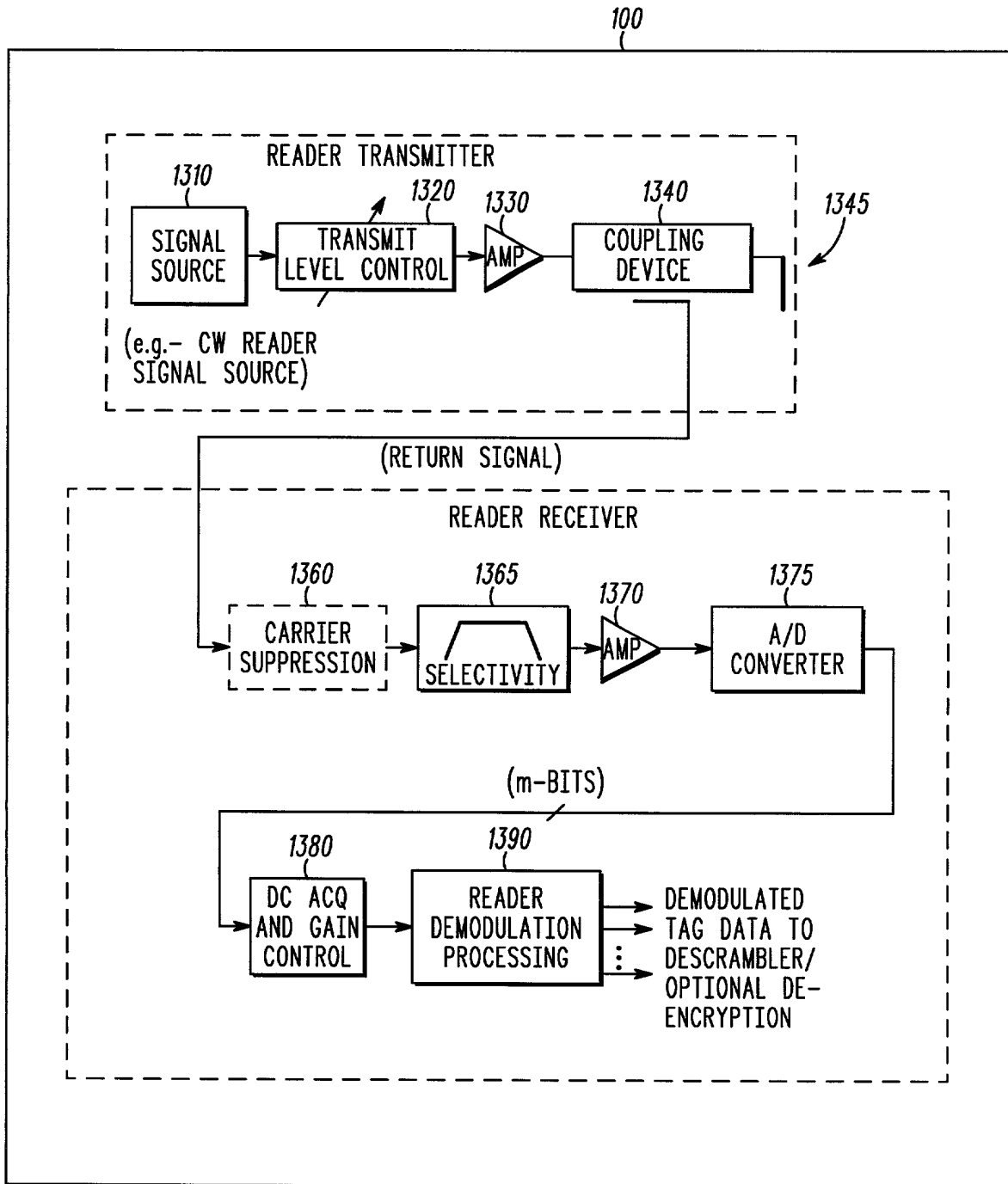
**FIG. 11**

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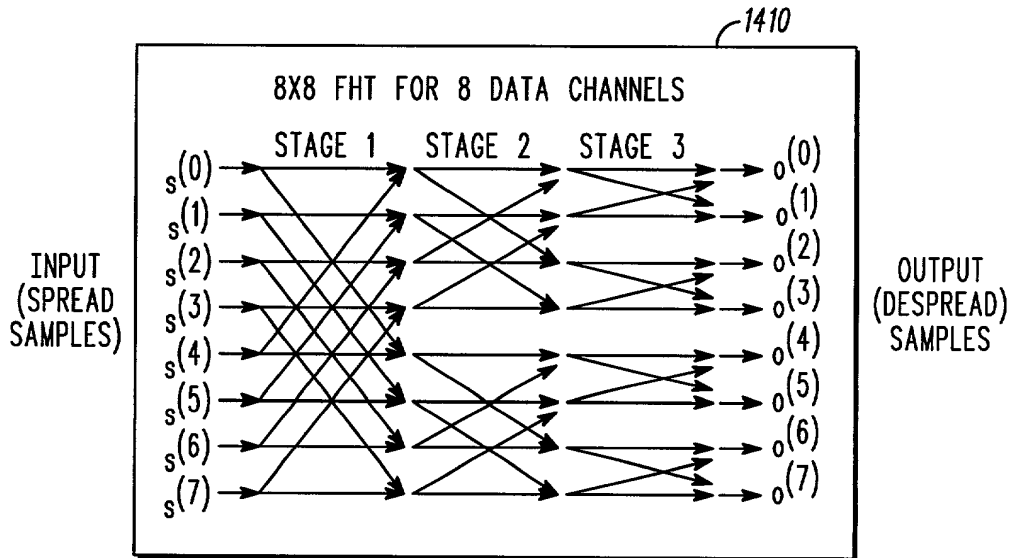
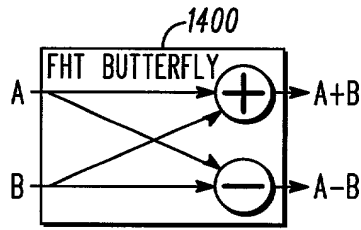
**FIG. 12**

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**FIG. 13**

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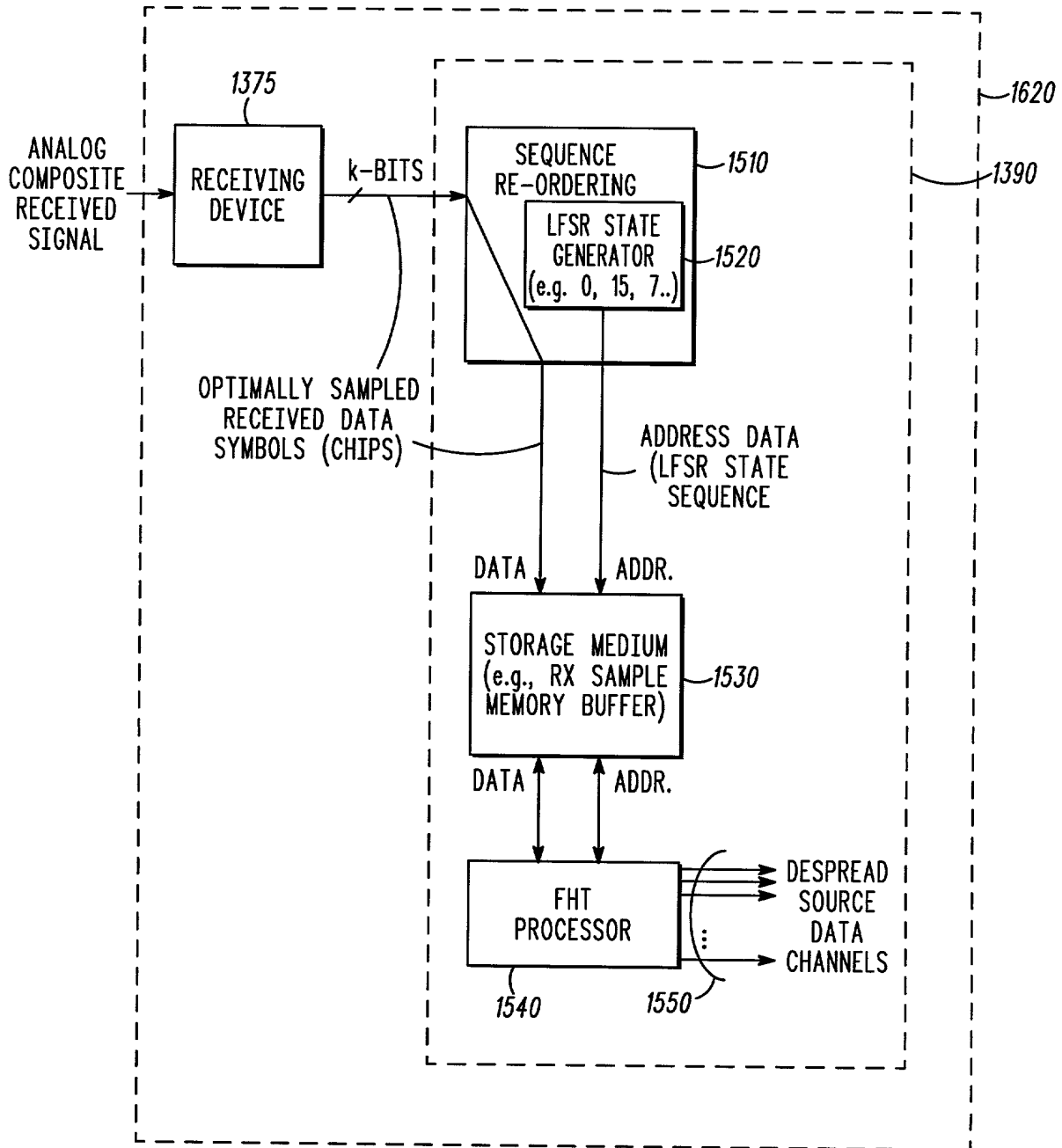
WALSH CODE (0)=	0	0	0	0	0	0	0	0
WALSH CODE (1)=	0	1	0	1	0	1	0	1
WALSH CODE (2)=	0	0	1	1	0	0	1	1
WALSH CODE (3)=	0	1	1	0	0	1	1	0
WALSH CODE (4)=	0	0	0	0	1	1	1	1
WALSH CODE (5)=	0	1	0	1	1	0	1	0
WALSH CODE (6)=	0	0	1	1	1	1	0	0
WALSH CODE (7)=	0	1	1	0	1	0	0	1

8 WALSH CODES (e.g., ROWS OF  $H_3$  HADAMARD MATRIX)

$$(H_{n+1} = \begin{bmatrix} H_n & H_n \\ H_n & \overline{H_n} \end{bmatrix}, H_0 = 0)$$

FIG. 14

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**FIG. 15**

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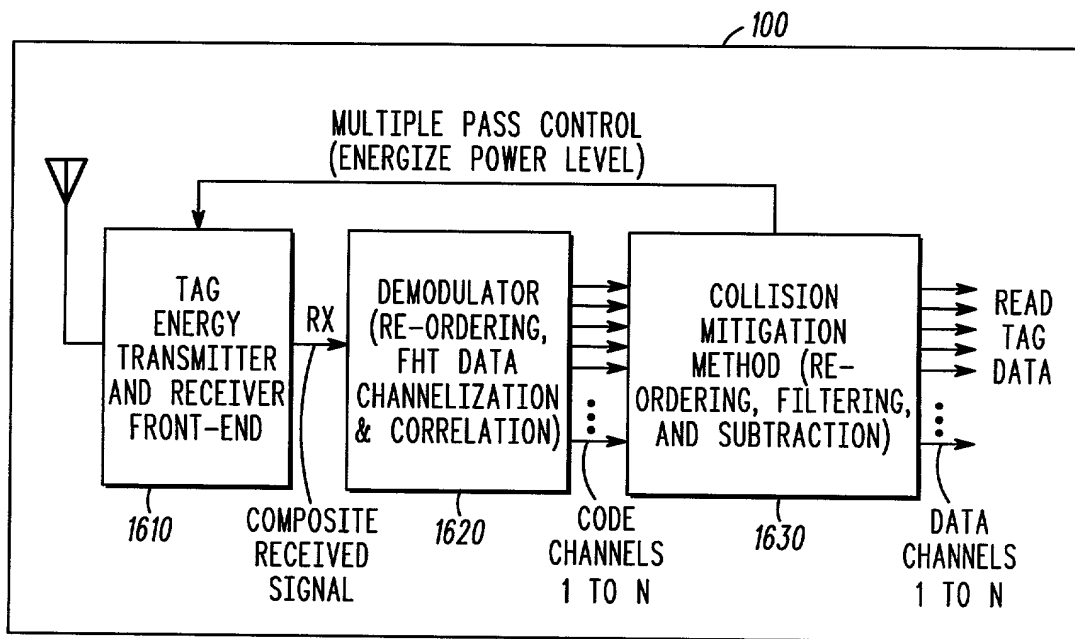
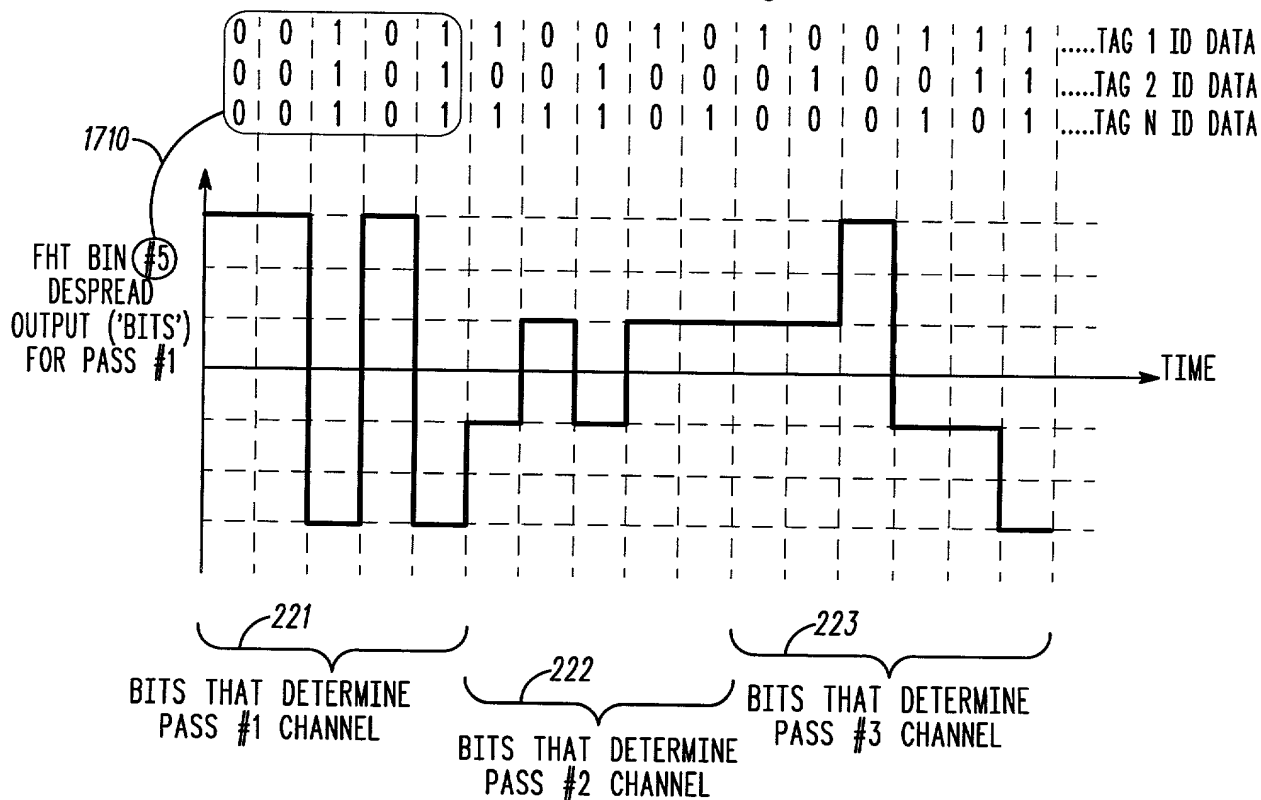
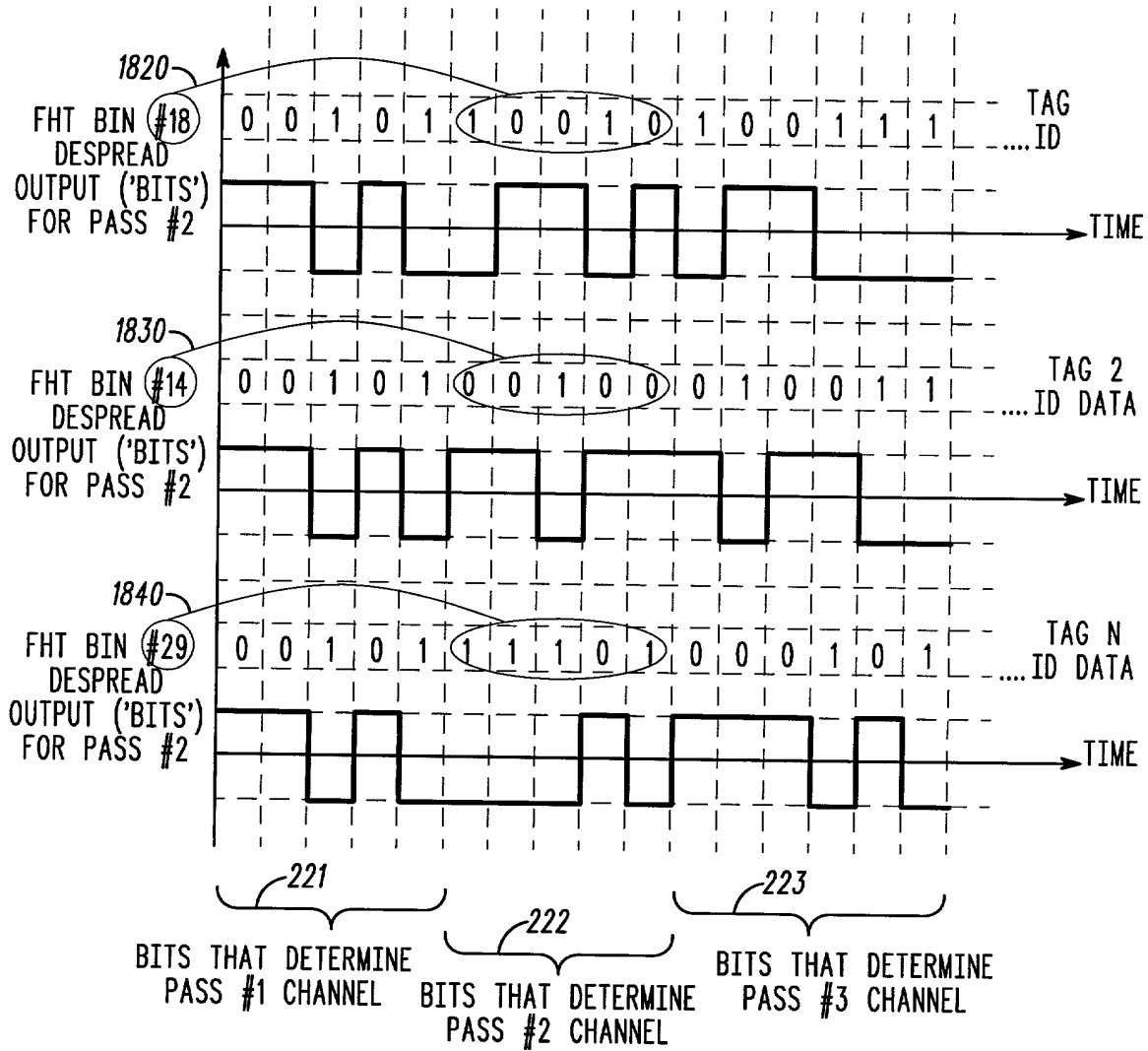


FIG. 16

FIG. 17

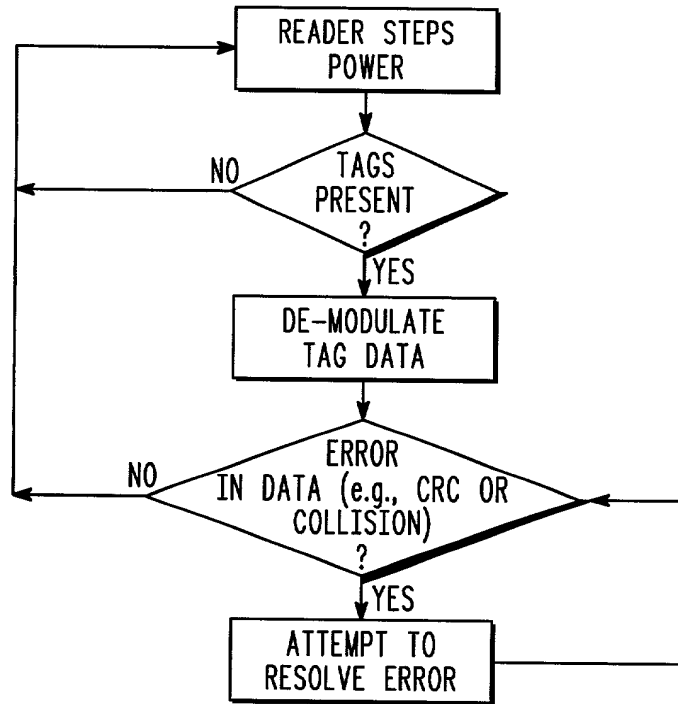


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**FIG. 18**

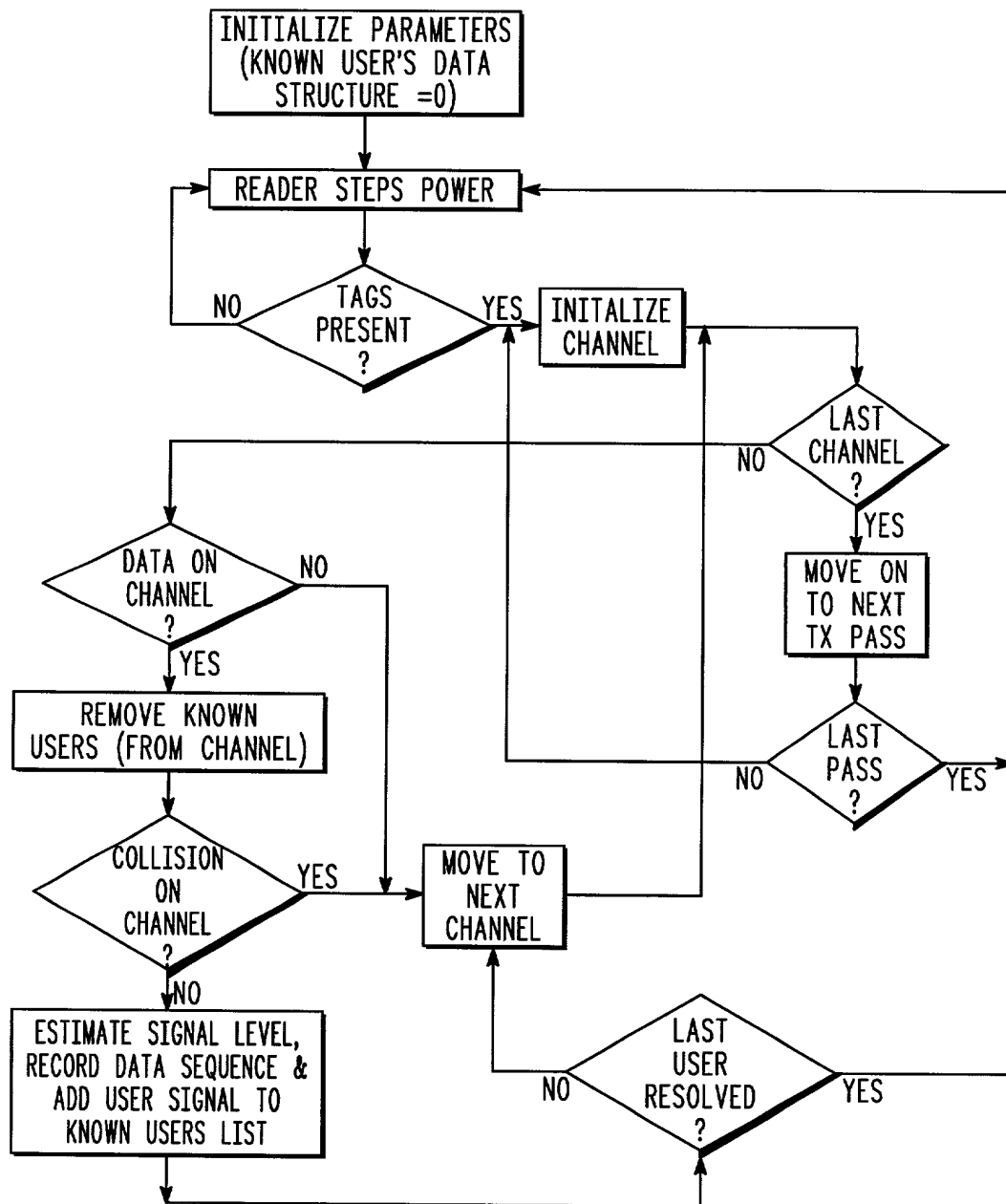
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**FIG. 19**



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**FIG. 20**

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CHANNEL NUMBER	#0	#1	#2	#3	#4	#5	#6	#7
PASS #1	①	2 6	4 8		③	⑦	⑤	
PASS #2	① 4 5	2 8			6 7			3
PASS #3	②			① 8	4 7		3	5 6
PASS #4			5	7	④	⑧	① 2 6	3
PASS #5	①		2	5 7	3	6 8	4	
PASS #6		4 8		5	① 3 6	2	7	
PASS #7		3 4 8		① 6		2 5		7
PASS #8		2 4	⑥			① 3 8	① 3	

LEGEND: CIRCLED ITEMS ARE NEWLY ID'd  
SHADED ITEMS ARE PREVIOUSLY  
ID'd

FIG. 21

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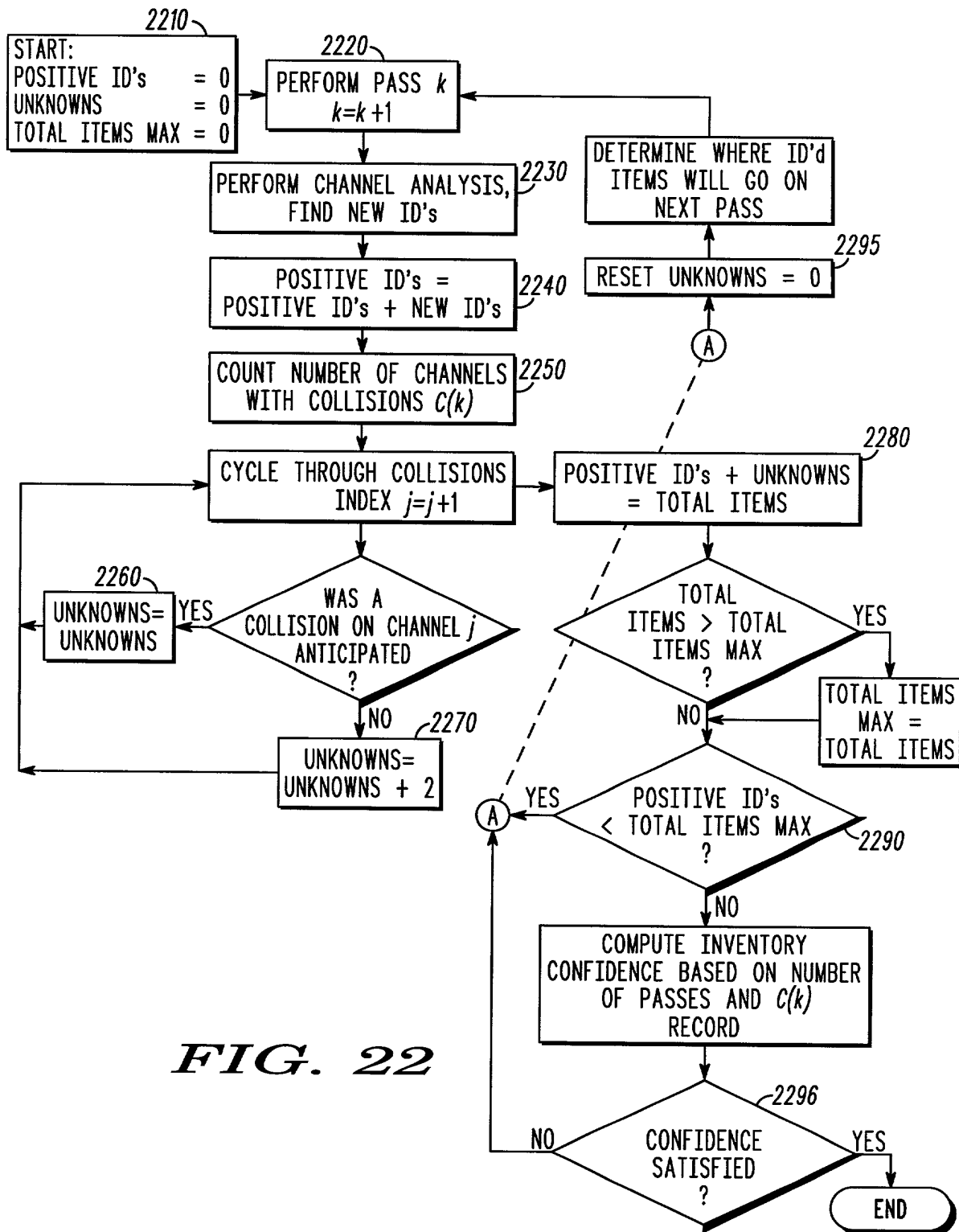
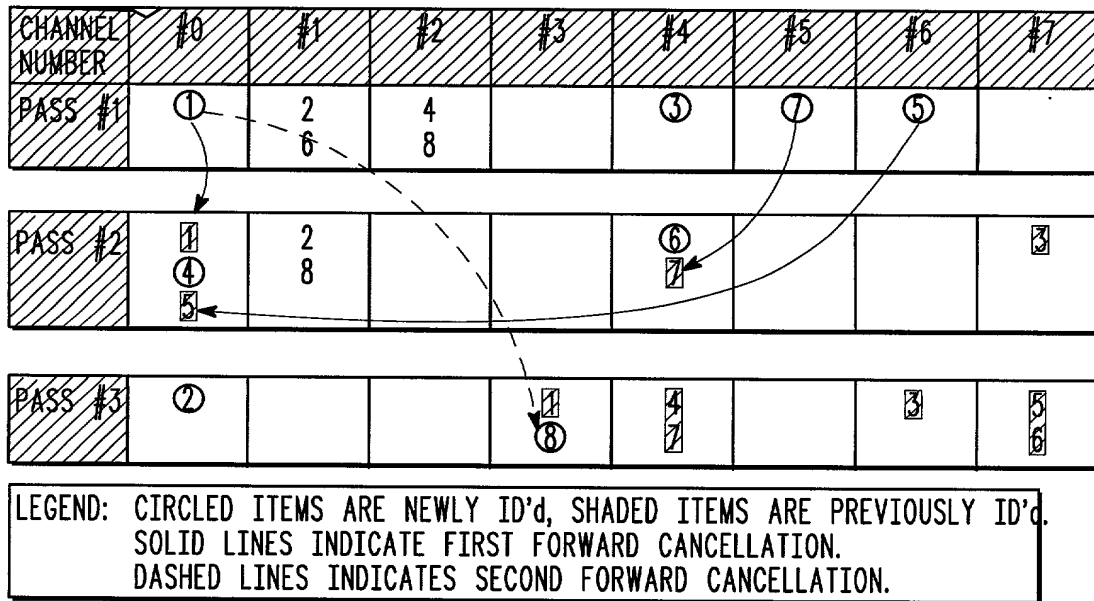
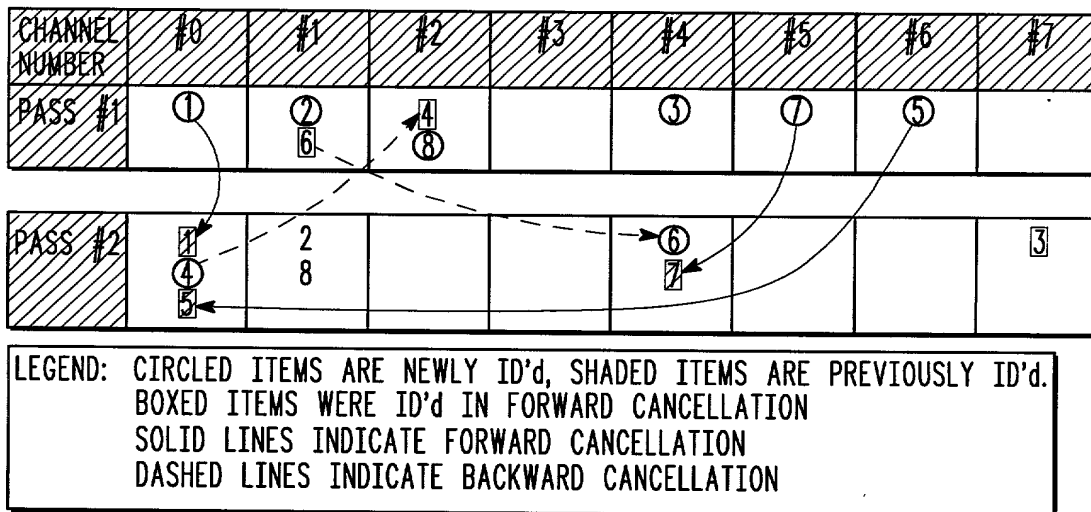


FIG. 22

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**FIG. 23**



**FIG. 24**